MATERIAL SAFETY DATA SHEET

Section 1: Company Identification and Product information

Product Name: Vitamin B₁₂ Assay Medium Product Code No.:BS016

Manufacturer's Name: BIOMARK LABORATORIES 135/1, DALVI WADI, DHAIRI, NARHE NANDED ROAD Pune – 411 041. INDIA Tel. No. : 91 02024380877/24380026/8459755093 E-mail: biomarklabs@gmail.com Date of revision: July 2020

Section 2: Composition/Information on Ingredients

Composition Ingredients Grams/Litre

Casein acid hydrolysate15.00 Dextrose 40.00 Asparagine 0.20 Sodium acetate 20.00 Ascorbic acid 4.00 L-Cystine0.40 DL-Tryptophan 0.40 Adenine sulphate0.02 *Guanine hydrochloride 0.02 Uracil 0.02 Xanthine 0.02 Riboflavin (Vitamin B2) 0.001 Thiamine hydrochloride 0.001 Biotin 0.00001 *Niacin 0.002 *p-Amino benzoic acid 0.002 Calcium pantothenate0.001 Pyridoxine hydrochloride 0.004 *Pyridoxal hydrochloride 0.004 Pyridoxamine hydrochloride 0.0008 Folic acid 0.0002 Monopotassium phosphate 1.00 Dipotassium phosphate 1.00 Magnesium sulphate 0.40 Sodium chloride 0.02 *Ferrous sulphate0.02 *Manganese sulphate0.02 Polysorbate 80 2.00

* Harmful / Irritant material

Hazardous Components	CAS-No.	Hazard Symbol	Risk Phrases	Safety Phrases
Niacin	59-67-6	Xi (Irritant)	R36/37/38	S 26-36
Guanine hydrochloride	635-39-2	Xi (Irritant)	R 36/37/38	S 26-36
Ferrous sulphate	7782-63-0	Xn (Harmful)	R 22-36/37/38	S 26-36
Manganese sulphate	10034-96-5	Xn(Harmful)	R 48/20/22	S22
Pyridoxal hydrochloride	65-22-5	Xn (Harmful)	R 22	-
p-Amino benzoic acid	150-13-0	Xn(Harmful)	R 22-36/37/38-43	S 26-36

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Section 3: Health Hazards Identification

Refer Section 2 and 15.

Section 4: First Aid Measures

General Information: No special measures required.

Ingestion: If swallowed, seek medical attention if symptoms occur. Show physician product label or MSDS.

Inhalation: If inhaled, supply fresh air or oxygen. Seek medical attention if breathing becomes labored or difficult

Eye Contact: Rinse opened eye for at least 15 minutes under running water, lifting lower and up eyelids occasionally. Seek medical attention.

Skin Contact: Remove contaminated clothing. Immediately wash with plenty of soap and water for at least 15 minutes. Wash clothing before reuse. Seek medical attention if irritation develops.

Section 5: Fire Fighting Measures

Use Carbon dioxide, ABC multipurpose dry chemical, or water spray. Fight larger fires with water spray or alcohol resistant foam. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6: Accidental Release Measures

Personal Precautions: Wear suitable protective clothing. Remove contaminated exhaustion at the workplace.

Environmental Precautions: Prevent dispersion of material. Wipe up with damp sponge or mop.

Clean-up Methods: Avoid prolonged or repeated exposure. Absorb material, ventilate area, and wash spill site after material has been cleaned up. Avoid inhalation, contact with eyes and skin. Prevent formation of dust.

Section 7: Handling and Storage

Handling: Avoid inhaling dust. Avoid contact with eyes, skin and clothing. Refer to Section 8 **Storage:**Store at 2- 8°C in well-sealed containers.

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Section 8: Exposure Controls/ Personal Protection

Wear appropriate NIOSH/MSHA-approved respirator, chemical-resistant gloves, safety goggles, other protective clothing. Mechanical exhaust required.

Section 9: Physical and Chemical Properties

Appearance: Homogeneous Free Flowing powder Colour: Cream to yellow pH: 6.1± 0.2 at 25°C

Section 10: Stability and Reactivity

Stability: Stable under recommended storage and handling conditions **Conditions to avoid:** Exposure to sunlight and moisture Hazardous polymerization will not occur.

Section 11: Toxicological Information

LD/LC50 values that are relevant: N/A Carcinogenicity: Not listed.

Section 12: Ecological Information

Ecotoxicity Tests: No specific data available.

Section 13: Disposal Considerations

Disposal consideration: Non- hazardous waste. Dispose of according to all federal, state and local applicable regulations.

Container information: Containers should be cleaned by appropriate methods and then reused or disposed of by landfill or incineration as applicable.

Section 14: Transport Information

DOT Regulations: Not Regulated Not classified.

Section 15: Regulatory Information

Risk Phrases:

R 48/20/22, Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed

R 22, Harmful if swallowed

R 36/37/38, Irritating to eyes, respiratory system and skin.

R 43, May cause sensitization by skin contact

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Safety Phrases:

S 26, In case of contact with eyes, rinse immediately with plenty of water and seek medical Advice

S 36, Wear suitable protective clothing

S 22, Do not breathe dust

Section 16: Other Information

Information contained herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty is expressed or implied regarding the completeness or accuracy of this information. Users of this material should satisfy themselves by independent investigation of current scientific or medical information that this material may be safely handled.